

NATIONAL COMMISSION ON ENTREPRENEURSHIP

Building Companies,

Building Communities:

Entrepreneurs in the

New Economy

July 2000

Prepared by the National Commission on Entrepreneurship

The National Commission on Entrepreneurship was established to provide local, state, and national leaders with a roadmap for sustaining and expanding a flourishing entrepreneurial economy. Entrepreneurship is the critical force behind innovation and new wealth creation—the key drivers of our country's economic growth. Through research, publishing, conferences and other events, the Commission will promote an agenda that helps grow a successful entrepreneurial economy into the 21st Century.

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444 N. Capitol Street | Suite 399 | Washington, DC 20001 tel: 202/434–8060 | fax: 202/434–8065 | Web Page: www.ncoe.org

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Building Companies, Building Communities: Entrepreneurs in the New Economy

EXECUTIVE SUMMARY

he American economy is undergoing a transformation driven by entrepreneurs who create opportunity for change and build new industries based on innovation and global markets. In fact, fast-growth, high-risk companies created more than two-thirds of new jobs between 1993 and 1996. These firms both serve their employees and customers well and strengthen their communities.

Because today's economy continues to speed ahead, policymakers face significant challenges. First, how can they lay an enabling policy foundation now needed by our entrepreneurial economy? Second, how can more communities use the blueprints for that foundation to become "entrepreneurial hotspots?"

The National Commission on Entrepreneurship (NCOE) set out to answer these questions by directly engaging America's entrepreneurs. This report, *Building Companies, Building Communities*, presents the findings of 18 focus groups held with more than 250 entrepreneurs across the country. This project is the first of its kind. NCOE policy experts asked entrepreneurs to discuss two topics: what factors, other than their own business acumen, help them succeed, and what factors make a community entrepreneurial?

Their comments provide new and fresh insights into the needs of fast-growing companies, and what policymakers across America can do to help start-ups prosper. These discussions produced four general themes:

1. The biggest challenge facing entrepreneurs is finding and keeping talented people. For years, high-growth firms were focused on finding money. Today, capital is more readily available. Now firms struggle to find quality people to fuel and sustain growth. Education and immigration reform

- immediately emerge as the highest priority policy issues.
- 2. A successful entrepreneurial community depends on a local business culture that embraces and nurtures entrepreneurs. The key institutions in such a culture are broad and informal networks: the lone-wolf business mogul is a thing of the past. Today's entrepreneurs are consummate networkers who thrive on sharing real-time information about where to find money, managers, employees, mentors, suppliers, customers, and even new technologies. How can public policy foster the creation and development of such networks in emerging entrepreneurial regions?
- **3.** Good public policy decisions help maintain and strengthen the entrepreneurial boom, while bad decisions unnecessarily stifle growth. These decisions are too important for entrepreneurs to ignore. Entrepreneurs and government officials must begin an on-going dialogue, and government must recast itself to do two things. First, government must continue to craft an overall framework and institutional policy infrastructure that enable entrepreneurial regions to thrive. Second, government must stimulate and support private sector institutions that work directly with entrepreneurs to build networks and spur regional entrepreneurial development.
- **4.** Most local economic development policies ignore the unique needs of entrepreneurial firms, even though these businesses create most new jobs. If local public officials want to get "the most bang for the buck" in funding economic development initiatives, they should focus on entrepreneurial firms. This is the sector that creates the new ideas, the new jobs, and the culture of innovation that leads to growing prosperity.

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hile the study of entrepreneurship is booming, most research focuses on the internal factors behind entrepreneurship, such as the family origins and personal strengths of company founders, the effectiveness of various marketing strategies, and the secrets of business plan design. Certainly there is a direct correlation between many of these factors and business success, but other factors play a part as well.

When you visit an entrepreneurial hotbed in the U.S., it is clear that "something is in the air." But what is that something? Entrepreneurial companies are not equally distributed around the country: they tend to cluster in certain regions or cities. The causes of this phenomenon cannot be tied solely to the personal attributes of entrepreneurs. Can it be that people in Silicon Valley and Austin are the only ones with good ideas? Not likely. Some deeper processes are at work.

The NCOE set out to take an in-depth look at entrepreneurs, their companies, and their communities. For this project, the NCOE traveled across the country to hear first hand from entrepreneurs about what they believe is important to their successes. Based on these conversations, we analyzed the factors that entrepreneurial regions have in common. In other words, we learned what policies are needed to help create more entrepreneurs and to ensure that more entrepreneurs succeed.

Methodology

This report is based on a series of 18 focus groups at 17 sites around the country. (See Table 1.)

Although we met with entrepreneurs in every region of the country, our sessions were mainly in urban or suburban areas. Overall, we talked with more than 250 entrepreneurs from a wide range of industrial sectors. In most cases, the meetings were arranged by a regional partner who worked regularly with local entrepreneurial businesses. Because we wanted to get a sense of a region's history in supporting entrepreneurship, we specifically tried to include individuals who had started more than one business. Thus, our sample was skewed toward serial entrepreneurs and away from initial start-up firms.

A diverse group of entrepreneurs attended most of our meetings. Each of the sessions lasted two to three hours with a group of six to 15 business owners. Two NCOE staff members facilitated and recorded the key points of the conversations in each session. Although entrepreneurs



Table 1: Focus group sites.

talked about their specific industries, this report addresses only common observations, concerns, and suggestions.

We asked entrepreneurs to discuss their views on the following questions:

- What are the primary challenges you face in growing your business?
- What are the primary opportunities and resources in your region to support the growth and development of entrepreneurial companies?
- What are the primary obstacles in your region that impede the growth of new firms, lead to business failure, or discourage new business start-ups?

These questions were designed to elicit entrepreneurs' views about the external factors that influence their firms' success or failure, such as access to capital, human resources, technology, and local infrastructure. We were particularly interested in examining those issues affected by public policy at the federal, state, and local levels.

The focus groups provided us with first-hand information in response to two questions:

- 1) What are the issues of greatest concern to America's entrepreneurs?
- 2) What are the key differences between regions that nurture entrepreneurs and those where the environment is less supportive?

In Part One of this report, we summarize the concerns voiced by our focus group participants. In Part Two, we highlight some of the key characteristics of regions that are friendly to entrepreneurs. Part Three contains the policy implications we garnered from the meetings. Part Four presents our conclusions.

Part One: Key Issues

What is on the minds of America's entrepreneurs? While we heard a wide range of ideas and concerns, we were surprised by the similarities expressed across the country. In order of importance, they are:

- ❖ Access to people
- ❖ Access to seed capital
- * Access to information and infrastructure
- ❖ Role of government

Access to People

According to our focus groups, finding and retaining quality people in all positions—management, technical, and entry-level—are the biggest challenges facing entrepreneurs. This finding is not a huge surprise; the business press has been filled with cover stories with titles like "The War for Talent" and "The Talent Chase." A recent Forrester Research report found that 100 percent of high-technology executives say that finding and retaining talent is their number one problem.² While the need for technology workers is common knowledge, business expansion has also been constrained by shortages of high-level managers and entry-level workers with good analytical and communication skills.

Many attribute this problem to today's tight labor markets and low unemployment in nearly every region of the country. Yet our focus group findings indicate that this shortage of workers stems from a more deepseated structural change in the economy. These entrepreneurs do not believe that finding qualified workers will be easier even when the more

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general labor shortage is alleviated. Structural changes—the shift to a knowledge-based economy, businesses starting at Internet speed—are affecting labor markets at all levels, from customer service representatives to highly educated biotechnology researchers.

Most media reports focus on the war for talent among "dot-coms" and other "new economy" sectors. These fastmoving industries face the most intense recruiting and retention pressures, but other industries are concerned they will soon face the same problem. The "dot-coms" serve as something of a "canary in a coal mine," alerting other industries of impending problems. Because of the intense pressure to hire many workers quickly, managers feel the need to offer new benefits such as stock options, flex time, and other perks. With the booming labor demand, workers hop from job to job in search of the best deal. For example, Silicon Valley's job mobility rate is twice the national average, generating more than \$3 to 4 billion a year in hiring and opportunity costs.³ Worker demands have reached a point where many top programmers in the computer game industry now employ agents to negotiate their compensation packages.

In focus groups in these "dot-com" and "new-economy"-dominated regions, the participants often expressed a sense of being under siege, as they face what they view as unreasonable pay and equity demands from employees. As a San Diego business owner put it, MBA programs now create expectations that "graduates can make \$1 million by the age of 25," and those who "don't hit this mark are failures."

A recent national survey by *jobtrak.com* found that more than half of college students and recent graduates believe that they will be millionaires by the age of 40.4 They expect to join a hot new Internet or high-tech business, cash in their stock options in a year or two, and then start their own businesses. However, reality is quite different. Given the high failure rate for start-ups, young millionaires are rare. But recruiting and retention remains a game of perception, and the expectations of new "dot-com" workers are often unrealistic. This situation has produced the ironic scene of 30-something entrepreneurs claiming that the 20-something newcomers don't understand the meaning of hard work and building a company for the long haul.

The personnel challenges facing "dot-coms" are part of a larger economic transformation that is increasing the importance of knowledge workers to business success and regional economic development.⁵ Leading high-technology growth regions are now characterized by high concentrations of knowledge workers and an ability to attract and retain these workers. For example, 85 percent of Internet executives in Silicon Valley cited access to talent as a key factor in determining their firms' location.⁶ Old advantages based on natural resources and other more stable factors have faded in importance, as the role of regional clusters has become more critical.⁷

The complexities of the "war for talent" vary at different levels of the job market. Finding technical workers is the primary challenge in hot regional markets like Research Triangle Park, Austin, and Boston. In these communities, demand for talent simply exceeds supply. According to the Information Technology Association of America, more than half of today's IT jobs will remain unfilled due to lack of qualified candidates.⁸ The

pressures of this situation have forced a host of temporary solutions, including well-publicized efforts like the expansion of the H1-B visa program for immigrants with needed technical skills.

A successful technology company relies on more than technically skilled personnel. Qualified management teams—both at the CEO and middle management levels—are also necessary, and attracting and retaining these people presents a difficult challenge in many regions.

For example, entrepreneurs in Salt Lake City and Pittsburgh can regularly hire entry-level technical talent, thanks to the presence of strong science and engineering programs at the University of Utah and at the University of Pittsburgh and Carnegie Mellon University. But, recruiting management is a different matter. One major problem is the absence of a critical mass of new businesses in these communities. One entrepreneur from Utah noted, "I can convince managers to come to Utah for the quality of life and for the challenge of running a company. Yet they fear that they might not be able to find another job in the region should things fail to work out." In other words, managers appear to be reluctant to uproot their families and move to these regions if they feel there is not a wide range of other business opportunities.

Entrepreneurs also face thorny challenges in hiring entry-level workers. Our focus groups almost unanimously lamented the competence and work attitudes of high school graduates. One Phoenix-based entrepreneur offered a typical view: "I can teach our business to anyone, but I can't teach the basic skills of being courteous to customers and bringing real commitment to the job." For both the technology and non-technology sectors, there is a labor shortage of workers who are "ready to work."

Interestingly, the lack of ready-to-work employees is not limited to entry-level workers. Entrepreneurs also are hard pressed to fill jobs that require college degrees. At this level, they are concerned not only about critical thinking and communications skills, but also about the lack of a positive attitude toward work, responsibility, and respect for customers. While the entrepreneurs recognize that tight labor markets contribute to their problems, they also feel that deeper structural problems (especially concerning the quality of K-12 education) affect them.

Recruiting and retention ranked at the top of entrepreneurs' concerns in every one of our focus groups. Yet the intensity of the problem varies by region. These problems are not so acute in regions with a major university and other "quality of life" factors that attract young people. Both the Austin and Boulder focus groups attributed their success in hiring and retaining employees to, respectively, the University of Texas at Austin and the University of Colorado in Boulder. Entrepreneurs told us that these universities produce relatively large numbers of skilled graduates who want to stay in these communities and are willing to work for comparatively low wages with upside equity potential—a dream workforce for entrepreneurial companies.

Access to Sources of Capital

Anyone who has worked with entrepreneurs for some time becomes an expert in issues related to access to capital. Until quite recently, access to financing was the primary problem for small businesses and entrepreneurs. The 1995 White House Conference on Small Business

voted access to capital as the number one problem facing small businesses. Advocacy groups, such as the Chamber of Commerce and the National Federation of Independent Business (NFIB), have echoed this concern.

Today, access to capital has been trumped by concerns over human capital, quality of life, and other issues. ...access to capital has been trumped by concerns over human capital, quality of life, and other issues.

While some regions and business sectors still have trouble accessing capital, the overall environment for funding start-up businesses is better than at any time in recent history. Venture capital investment reached record levels in 1999 and in the first two quarters of 2000. (See Table 2.)

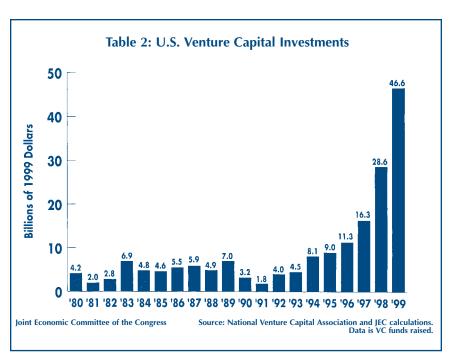
Booming capital markets have created a perverse problem of their own. Entrepreneurs can find funding for their new ventures, but finding "smart money"—money from funders who can provide useful mentoring or industry expertise—poses a challenge. In some sectors, there are too *many* entrepreneurs and too *much* financing available.

Complaints of "too much funding" are unlikely to generate sympathy. Many business owners would probably respond by quoting Mae West: "Too much of a good thing is just right by me." But there are potential downsides to the current situation.9

First, as dollars have poured into venture capital firms, they have been overwhelmed with investment opportunities. This gives them less time to offer the critical mentoring and monitoring services that are the real added value provided by venture capital investments.

Second, the boom in "dot-coms" and high-technology sectors has raised expectations for returns from venture investments. If investors can reap huge short-term benefits by a quick run-up in "dot-com" values, they will not invest in companies that offer prospects for more stable long-term growth. 10 As one participant in Northern Virginia noted, "It's difficult to find funding to build a company that will be sustainable over the long haul. Expectations about your firm's growth rates are unreasonable."

Finally, the current boom is pushing venture capitalists to make bigger deals. Because they face internal constraints on the number of deals they can fund, venture capitalists have opted to do fewer deals with bigger investments. For example, in the first quarter of 2000, the average venture-capital-backed firm received more than \$14 million in funding.¹¹



As deals have grown in size, investors have shifted away from funding new start-ups and increased their financing of later-stage companies.

As a result, entrepreneurs face a real challenge obtaining smaller amounts of seed capital. Our focus groups were nearly unanimous in identifying difficulties in obtaining seed capital investments in the range of \$300,000 to \$3 million.

This transformation in venture capital investing is a major factor affecting the entrepreneurial landscape, but it is not the whole story. Venture capital is important for some entrepreneurial start-ups. Most start-up businesses, however, do not rely on equity investments. Nationwide, in fact, few firms receive venture funding. In 1999, only 3,600 U.S. firms received venture funding. Meanwhile, the U.S. averages anywhere from 600,000 to 800,000 new businesses per year. Thus, the presence of venture capital is not necessarily the sole indicator of a strong entrepreneurial region.

While formal equity investment resources are important, most of our participants received their financing from traditional sources, such as banks and "friends and family." This finding is not unusual. For example, very few of the *Inc.* 500 companies initially obtained venture capital. Most relied on personal savings, credit cards, and second mortgages for start-up capital. In fact, their pattern of financing does not change over time. Only 20 percent of these companies used equity financing within five years of founding their companies.¹²

Specific regions and demographic groups often face their own capital-access challenges. For example, women and minorities have distinct problems accessing funding from venture capital firms or from individual angel investors. Because angel networks can be extremely informal and are often built by established entrepreneurs with a history of doing business together, these networks can be invisible to new entrepreneurs. To compound the problem, access to venture funding is often

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dependent on introductions by lawyers, accountants, and angels in these very same networks.

In addition, entrepreneurs located on Indian reservations have extreme financing problems and face a unique set of dilemmas. Because they live and operate on tribally owned land, business owners cannot obtain debt financing that uses their homes as collateral (a typical business financing approach). At the same time, they have limited access to equity financing of *any kind*. As a result, the opportunities for financing a new, reservation-based business are extremely limited.

Infrastructure and Institutional Support for Entrepreneurs

A third issue of concern to our focus groups is the level of local institutional support provided to entrepreneurs. Often these concerns are idiosyncratic to specific regions. For example, in New York's Silicon Alley, the high cost of office space and the poor quality of digital infrastructure topped the list of entrepreneurs' concerns. Obtaining high speed Internet access in Manhattan is both complicated and expensive.

In some cases, local governments are addressing these needs. In Boulder, the focus group complimented the state's "Colorado SuperNet," which wired the city with high bandwidth Internet capability and trained countless network engineers in the process. On the other hand, they decried the slowness and incompetence of the local regional telecommunications company in hooking up new connections to the network.

In contrast, regions located near Internet hubs may have a comparative economic advantage. Members of our Kansas City focus group were positive about the quality of local Internet access. While Kansas City is not usually considered a hotspot for "dot-coms," the local presence of

Sprint has provided an enviable infrastructure base. Entrepreneurs in Northern Virginia—the birthplace of the Internet—enjoy similar advantages.

We were surprised to find that our focus groups had mixed opinions about the role of local universities and colleges. Universities attract talented people and often serve as an anchor institution in a community. These positive assessments were most common in regions, such as Austin, North Carolina, Pittsburgh, and Boston that boast premier technical research universities. Regions with major research hospitals, like Birmingham, are similarly well-regarded.

While this anchoring role can be critical, most of our focus groups thought that universities do not fully support local entrepreneurs. One focus group was particularly critical of the local universities' failures to provide targeted continuing education and mentoring programs or to participate in the local business community. Another focus group criticized the local university's failure to provide cross-training between the engineering school and the business school.

Other focus groups noted the failure of the universities to establish user-friendly technology transfer programs. Entrepreneurs are aware of the on-going research at universities but are often frustrated by the obstacles to commercializing that research. We also heard complaints that local colleges were mainly interested in soliciting donations rather than working in partnership with entrepreneurs.

Finally, entrepreneurs repeatedly criticized the performance of their local K-12 education systems for not producing the quality of graduates needed for their businesses. Entrepreneurs are willing to train entry-level high school graduates in the specifics of their businesses, but they are not equipped to teach fundamental analytical skills, basic communications skills, and even healthy work attitudes and habits.

Relationship of Government to Entrepreneurs

A final set of issues raised in the focus groups concerned the role of government and its relationship to entrepreneurs. While traditional small businesses care about such issues as paperwork, capital gains taxes, and estate taxes, our focus groups offered surprisingly little feedback on these hardy perennials of "inside the Beltway" small business debates.

In fact, most of the discussion focused on whether policymakers "get it." In other words, do government agencies understand the unique needs and concerns of entrepreneurs? Many state and local governments do, in fact, "get it." For example, entrepreneurs in Pittsburgh laud Pennsylvania's efforts to foster technology development in the state; they see value in a true and vibrant partnership between the government and private industry in investing in commercially viable technologies.

Effectively targeted government programs are only one piece of this

puzzle. Smart government agencies also work to ease the creation and growth of new firms. Entrepreneurs in the Seattle region appreciate the efforts of local municipalities to streamline licensing and other business regulations.

Problems with licensing procedures were most pronounced in a region like Birmingham, where municipal, county and state governments share jurisdictions. This is in direct contrast to regions with regional governance structures, such as Indianapolis.

State support for high-technology clusters is an important issue according to our focus groups. North Carolina is often lauded for its efforts to support and sponsor high-technology development, yet our focus group participants argued that there is often very little government follow-through on their articulated strategies of working closely with emerging high-tech entrepreneurial firms. This lack of follow-through, seen in other states as well, creates for technology entrepreneurs a sense that working with government agencies promises little bottom-line benefit.

Also, there were some general complaints about government red tape and the recovery of sales tax for out-of-state sales. California's business regulations came in for consistent criticism by California-based entrepreneurs and those who did business in the state.

However, entrepreneurs view federal regulations and policies that protect intellectual property as critical to their success. There was little discussion of current problems; most entrepreneurs recognize the proper balance must be struck between innovation deserving protection and knowledge that should shared for the public good. They feel that current policy generally reflects a proper balance. Moreover, expanded federal funding of basic science and technology research is clearly important. Entrepreneurs in regions where technology-based companies dominate know that government funding helped create their entrepreneurial strength. They are adamant that this governmental role should continue.

Remaining concerns about intellectual property include the patenting of business processes, the registration of names for the Internet, and some software technology issues. Several entrepreneurs urged more funding for the U.S. Patent & Trademark Office. They believe that current resources at the office are severely strained, that patent issues are taking too long to resolve, and efforts to improve its speed are affecting the quality of its decisions.

In general, we heard very little about specific federal rules and regulations. Most comments were concentrated on state and local governments. Even federal taxation issues received few comments. When we asked groups about the importance of further reducing the capital gains tax, most entrepreneurs said they would welcome such a change. But they also acknowledged that such tax cuts would have little impact on their business decisions.

Part 2: Key Regional Factors

Our focus group project did not simply seek to capture what's on the minds of America's entrepreneurs. We also wanted a better understanding of the critical local and regional factors that contribute to entrepreneurial success. The focus group results highlight a clear difference between strong entrepreneurial regions and those regions where entrepreneurs struggle. A talented and focused entrepreneur can succeed anywhere, but he or she is more likely to succeed in regions that have the following characteristics:

- Diversity in Sources of Capital
- An Enabling Culture
- Strong Local Networks
- ❖ A Supportive Infrastructure
- "Entrepreneur-Friendly" Government

Diversity in Sources of Capital

Most studies of the "new economy" or high-technology "hot spots" recognize that access to capital is central to a region's success. Yet analysis of capital sources is largely concentrated on venture capital investments. To some extent this focus makes sense, because data on venture capital is very comprehensive, ¹³ and there is clear evidence that venture-backed firms generate higher growth rates and greater levels of innovation than other comparable businesses. ¹⁴

Nonetheless, the presence of venture capital has some limitations as an indicator of entrepreneurial capacity or activity because these investments are often heavily concentrated in a few regions or industrial sectors. In 1999, roughly 66 percent of all venture capital investments went to Internet-related businesses. Thus, it might be fairer to claim that recent venture capital investment data is a good measure of entrepreneurship in the "dot-com" sector.

Our focus groups agree that strong entrepreneurial regions enjoy diverse sources of capital to create and grow start-up firms. The presence of local venture capital firms is one indicator, and this certainly plays a role in regions like Silicon Valley, Boston, or Austin. Equally important is the presence of organized networks of individual angel investors, such as the Tri-State Investors Group in Research Triangle Park, Austin's Capital Network, and various networks in Northern Virginia. In New York City, for example, organized angel networks are supplemented by large numbers of individual angels who seek to invest their earnings from high-paying jobs on Wall Street or other professions.

Many regions with networks of investors are reaping the benefits of past economic booms. Angels tend to emerge from the ranks of successful entrepreneurs, so regions with many successful entrepreneurs tend to have strong angel networks. Moreover, most angels invest close

to home, so their presence has the effect of creating a virtuous cycle of wealth reinvestment in the community. Some of the oldest angel networks are in Silicon Valley and are thriving, thanks to those who have cashed in stock options to become angel investors or start their own companies. In the Northern Virginia/Washington region, many observers believe executives departing from America Online after the merger with Time-Warner may trigger a new surge in local angel investments.

The celebration of entrepreneurs and of risk-taking by political figures, business CEOs, community leaders, and especially the local media, is an important contributing factor to a region's economic success.

Traditionally, angel investing is an informal and, in many ways, unorganized process. However, there are

signs of change. Angels are beginning to organize themselves into formal networks, usually centered around a specific kind of business venture (high-tech firms, Internet firms), or a geographic area (Northern Virginia or Silicon Valley), or around universities and public and private incubators. The presence of these organized angel networks indicates a strong entrepreneurial community.

Northern Virginia's The Capital Investors Group is a typical example. The network has 18 members, each of whom now leads or started a successful local technology company and has kicked in \$100,000 to invest in start-up companies. They share the goals of hoping to spot the next hot, local company and to grow the region's economy. They host a regular dinner where they hear one or more presentations from start-up businesses seeking capital. The angels question the entrepreneur about the business: its technology, its marketing plan, and perhaps most important, its management team. After the presentations, the angels again meet privately to decide whether or how much they invest.

In robust entrepreneurial regions, one will also find professional "seed" or "early-stage" capital funds, either privately funded or public-private entities that target the \$300,000 to \$3 million investment level. First started in 1980, the Massachusetts Technology Development Corporation (www.mtdc.org) in Boston is one example. Similarly, in Pittsburgh, Innovation Works (www.innovationworks.org) has replaced its earlier emphasis on technology transfer with a new focus on providing seed capital to new businesses.

Since most entrepreneurs continue to receive financing from traditional sources, the attitudes of local banks toward these firms is also critical. Strong entrepreneurial regions often boast a banking sector that is more flexible and less risk-averse, thus making it easier for them to work with smaller firms.

An Enabling Culture

In entrepreneurial hotspots, company founders could all point to a shared history of the region and a vision for the future. This sense of shared history was most strongly expressed in Research Triangle Park, where all of our interviewees could recite background on the founding of RTP and the emergence of cornerstone companies, like SAS Institute, Glaxo, and more recently, firms such as Red Hat and Accipeter. There is also remarkable unanimity on the path for RTP's future development and on the central challenges facing the region.

A key individual or company often serves as a linchpin for the region's development. In Northern Virginia, Mario Morino of Legent is regularly cited as a primary figure in developing a vision for the region. In Austin, George Kozmetsky of the IC2 Institute initially filled this role, and many of Austin's first tech companies were originally linked to Tracor, Inc. In Silicon Valley, leaders at Hewlett-Packard and Fairchild led the pack. In San Diego, the roles played by Irwin Jacobs of Qualcomm and Bob Beyster of SAIC and the companies they founded were critical to the region's growth.

"Anchor companies" are often essential, and regions that are in the early stages of building an entrepreneurial culture appreciate their role. For example, in Pittsburgh, we heard numerous references to FORE Systems (now sold to GEC-Marconi) as a potential anchor for the region's technology community.¹⁶

The celebration of entrepreneurs and of risk-taking by political figures, business CEOs, community leaders, and especially the local media, is an important contributing factor. In Boston, entrepreneurs cited *The Boston Globe's* early slowness in covering entrepreneurs as a limiting factor in the region's growth. In contrast, the thorough and consistent coverage of entrepreneurial companies by the *Puget Sound Business Journal* is central to the strong entrepreneurial culture in Seattle.

Another characteristic of a strong entrepreneurial culture is the commitment of local entrepreneurs to give back to the community. Successful entrepreneurs do not see their responsibilities ending with giving money; they also participate in local education programs, charities, policy development and politics, and informal support networks. For example, entrepreneurs in our Seattle focus group talked about their duty to support their local school system, which would not just provide a stream of qualified employees for them and other entrepreneurial companies but also raise the standard of living of their entire community. On the other hand, Seattle entrepreneurs lamented that one of their biggest problems is their inability to contribute enough time to community affairs. Entrepreneurs' "giving back" benefits the community in obvious and not-so-obvious ways. The obvious ways are through philanthropic contributions and hands-on involvement in community improvement projects. Less obvious is that this shared activism helps create the

entrepreneurial culture that fosters continued growth and prosperity.

Entrepreneurial regions are also unusual in their diversity and their embrace of risk-takers. Booming regions are open and less susceptible to the stultifying effects of "the establishment." Recent research by Gary Gates of Carnegie Mellon University created an index that measures

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the diversity of a region.¹⁷ (Gates' research found that the highest single predictive factor in the diversity index is the number of gay couples in a particular city.) This diversity index is a remarkably powerful indicator of a region's success in attracting high-technology and knowledge workers. Regions that score high on the diversity index are open to new ideas, new people, and risk taking; thus, they are perfect environments for risk-taking start-up firms. In these regions, the local networks are more open to outsiders.

Finally, and perhaps most importantly, entrepreneurs talked about the ethic of information sharing as a critical determinant of a region's entrepreneurial success. Entrepreneurs in regions that are slightly less developed than Silicon Valley, for example, aspire to emulate the Silicon Valley model where entrepreneurs share their nonproprietary information openly and without reservation. In their view, a culture is at its most entrepreneurial when entrepreneurs openly share information—about sources of capital, great managers, potential directors, new developments in technology, market information. The knowledge offered to other entrepreneurs will eventually come back to benefit the giver several fold.¹⁸

Networks: the Essential Links

One of the more striking findings of our focus groups is the importance of informal networks of and for entrepreneurs. Although such findings were not completely unexpected, we were impressed with the pervasiveness of networks and the breadth of education, information, mentoring, and services that networks provide in strong entrepreneurial regions. We believe that the significance of these networks is not well understood or appreciated by policymakers. Entrepreneurs are classically depicted as rugged individualists who single-handedly build great companies. In reality, entrepreneurs are consummate networkers who thrive in communities.

Networks are essential because they link entrepreneurs to potential sources of capital, new employees, strategic alliance partners, and service providers such as lawyers, accountants, and consultants. Through networks, entrepreneurs share information and assessments of markets

Entrepreneurs are classically depicted as rugged individualists who single-handedly build great companies. In reality, entrepreneurs are consummate networkers who thrive in communities.

and technology as well as lessons learned from their own experiences. These links are absolutely essential if a growing company is going to travel successfully at entrepreneurial speed.

As a region first develops, local business networks are generally based in formal institutions and play an advisory or information-sharing role. The Birmingham Chamber of Commerce is one example that we witnessed during this project. The

Chamber and its Entrepreneurs' Roundtables provide a primary networking venue for local entrepreneurs. The groups meet monthly to hear presentations on issues of common concern. Interestingly, business-to-business information sharing outside the group meetings appears to be limited.

Another example is the National Council on American Indian Enterprise Development (www.ncaied.org), which is the primary (and often only) networking venue for American Indian entrepreneurs. Yet another is the Atlanta Technology Development Center (ATDC). Located near Georgia Tech, ATDC not only provides space and services to tenant incubating companies, but also sponsors networking programs for interested entrepreneurs, investors, service providers, and managers.

In contrast, thriving regions generally boast a wide array of both formal and informal networking structures. Formal groups assume a less important role as regions become more entrepreneurial. In strongly entrepreneurial regions, informal networks tend to dominate. Two factors may contribute to the emergence of these informal networks:

- **1.** Scale: More entrepreneurs in one place mean more opportunities to network; i.e., regional clusters emerge.
- **2.** Attitude: A more open culture encourages information sharing and networking.

Recent history in Austin helps illustrate the development of informal networks. ¹⁹ In the 1970s and 1980s, Austin's economy was highly dependent on state government and UT-Austin. At that time, George Kozmetsky's IC2 Institute was the primary organization supporting entrepreneurship, by operating a local incubator and leading the charge to attract high-tech firms to the region. Today, a number of groups like IC2 exist, but most networking happens on an informal company-to-company or person-to-person basis. The locus of activity has shifted away from the university and central Austin toward several small clusters located at the outskirts of the city. Meanwhile, IC2's work has shifted away from business support toward a greater emphasis on education and technology transfer.

Entrepreneurs in Northern Virginia have organized into myriad networks. Netpreneur.org, created by the Morino Institute, was the first and is probably the largest. It connects thousands of entrepreneurs, service providers, and others interested in entrepreneurship in Virginia, Washington, and Maryland – via the Internet. This region is diverse, not only in the breadth of entrepreneurial focus (e.g., information technology, biotechnology), but also because of the numerous governmental jurisdictions in the geographic area. Organizing over the Internet has helped to overcome many of the hurdles to face-to-face networking in a vast and densely populated area. Networks also are strongly supported by a large number of publications dedicated to covering technology and entrepreneurship, including *The Washington Post*.

Groups that are not part of the "old boy networks" of the world may not be full participants in the new networks of entrepreneurs. Women and minority entrepreneurs are uncertain as to whether they have successfully infiltrated these networks. Data back up these reservations, as women and minority entrepreneurs are less successful than their white male counterparts in obtaining venture capital or other financing.²⁰ In Boulder, for example, participants agreed that it is harder for women to access funding networks, and it is even harder for minority women. In the women's focus group in Northern Virginia, women entrepreneurs faced a somewhat different problem. While they could access venture capital firms, they were usually assigned to a firm's female partner, regardless of her expertise or the entrepreneur's industry or needs.

In response, women and minorities are building their own networks to complement the broader networks of entrepreneurs. In New England, the Center for Women and Enterprise (www.cweboston.org) offers a range of services for women entrepreneurs, including networking opportunities, business planning assistance, and access to angels and other investors. On the West Coast, the Forum for Women Entrepreneurs (www.fwe.org) helps women build and run high-growth technology and life-science companies. Founded in 1993, the Forum has chapters in the Bay Area and Seattle and is now planning to open chapters in Southern California and Denver/Boulder.

Immigrant groups follow this same pattern. Successful East Indian entrepreneurs have formed a national network, The Indus Entrepreneurs (TiE), which includes executives from some of America's leading entrepreneurial businesses.²¹ Interestingly, the Hispanic entrepreneurs in our Los Angeles focus group recognized that they are poorly networked and suffer for it.

Supportive Infrastructure

Booming regions also enjoy a strong people-based infrastructure that supports entrepreneurs. These regions have a solid core of experienced It is hard to overestimate the importance of a major research university to a region's entrepreneurs. service providers such as lawyers, accountants, and consultants who know how to work with entrepreneurs and who understand the differences between their firms and traditional small businesses. These service providers understand the unique conditions facing entrepreneurial firms and are often willing to be flexible in their terms for payment and service. In many cases they receive, and sometimes demand, equity in exchange for provided services. These practices can make a crucial

difference for new, fast-growing firms, which often have limited cash flow and thus may not be able to hire lawyers and consultants using traditional pay-by-the-hour billing practices. Also, organizations designed to support entrepreneurs by providing reduced-cost office and plant space (a role often played by incubators) are also common in these regions.

Other infrastructure conditions, such as access to quality transportation networks, are also critical. Research Triangle Park entrepreneurs, for example, believe that the limited number of flights to other entrepreneurial regions, especially to the West Coast, constrains the region's growth. Entrepreneurs also cited the importance of speedy upgrades of telecommunication services, including high-speed Internet access.

Colleges and universities are among the most significant parts of the local infrastructure. It is hard to overestimate the importance of a major research university to a region's entrepreneurs. America's leading high-technology centers, like Boston, Austin, and Silicon Valley, are all located near such research institutions. However, as we noted in Part One of this report, a number of reforms are necessary to make universities even more responsive to the needs of entrepreneurs.

The presence of a major university alone is not enough to foster an entrepreneurial boom. Universities assume a critical anchor role only when combined with the following:

- ❖ Quality of life is good (e.g. low cost of living, climate, traffic, entertainment and cultural amenities, K-12 education, etc.).
- ❖ Local culture is open to risk taking and to new ideas.
- Large, established corporations do not dominate local linkages to the university.

In contrast to the thriving communities around Stanford, MIT, and UT-Austin, one can point to the relative absence of an entrepreneurial boom in Ann Arbor, Rochester, or Pittsburgh. The differences are many, but one important factor is whether the entrepreneur/ bureaucrat "culture clash" dominates the relationship between the local university and the entrepreneurial community. The tensions caused by this clash can

hamper a region's entrepreneurial development.

This tension becomes most pronounced in transactions related to the transfer of technology first developed inside the university.²² Licenses for research and technology have become a big business for universities, and a large bureaucracy devoted to technology transfer has emerged. Nearly all of our focus groups commented about the lack of responsiveness and the difficulty of working with the university technology transfer community. They also noted that universities had unrealistic expectations about the revenue that could be generated through partnerships with private industry.

According to our focus groups, best practices for a university's interaction with entrepreneurs should include the following:

- ❖ The university's leadership publicly espouses support for local entrepreneurial companies.
- Technology transfer programs do not mirror traditional university bureaucracies in structure, staffing, or even compensation. Entrepreneurs strongly prefer private sector management of these programs.
- ❖ The university takes an equity stake in entrepreneurial ventures.
- ❖ Training and education programs are implemented with the advice of, and sometimes in partnership with, entrepreneurial companies in the region.

Government

If the average citizen simply scoffs at the salutation, "I'm from the government, and I'm here to help," entrepreneurs respond with downright cynicism. According to our focus group participants, there is a fundamental culture clash between governments and entrepreneurs. Entrepreneurs move quickly, revel in decisions that may be vigorously criticized by others, and take calculated risks that they may well lose. Government bureaucracies move slowly, make compromise decisions that minimize criticism, and avoid taking risks.

At the same time, entrepreneurs generally understand that governments have a role to play. They facilitate capital markets, sponsor education and training, fund transferable technology research, and build and regulate the infrastructure. Moreover, in successful entrepreneurial regions, the palpable support of government for entrepreneurs is an extremely positive factor in fostering an entrepreneurial culture. Two illustrative tales came from our focus group in Seattle. First, the very public support of the governor and his administration for entrepreneurial companies is helping validate the risk-taking, wealth-building culture of entrepreneurship in the region. Second, in nearby Renton, Washington, the mayor visited a start-up and pledged to help make Renton an entrepreneur-friendly environment.

Symbols do matter. When a governor or mayor visits a start-up, the

...there is a fundamental culture clash between governments and entrepreneurs. Entrepreneurs move quickly, revel in decisions that may be vigorously criticized by others, and take calculated risks that they may well lose. Government bureaucracies move slowly, make compromise decisions that minimize criticism, and avoid taking risks.

visit sends an important message. When these symbols are followed up with results, such as efforts to expedite business licensing, the ripple effects can be profound.

How can we sidestep the negative consequences of the culture clash between bureaucrats and entrepreneurs and ensure that government becomes a supporter of entrepreneurship? Entrepreneurs from all regions feel strongly that governments should act

more like businesses. In other words, governments must act faster, be more transparent, and be more flexible. The watchwords of our focus groups were "streamlining" and "reducing redundancy." How can government make it simpler to comply with legitimate regulations? How do we reduce the number of forms and the number of offices to file with? And can the nightmare of multiple regulations by multiple jurisdictions be made less severe? Compliance with uniform regulations with one or relatively few government offices is what entrepreneurs want.

While our focus groups rarely cited government programs as key to their successes, they recognized that federal, state and local governments can help create a support infrastructure for new firms. They also strongly embrace programs where public sector value is achieved through, or in partnership with, the private sector. Examples include the Small Business Investment Company (SBIC) program, the transfer of rights to universities of federally funded technology, and the seeding of local institutions, such as business incubators, that help jumpstart networks in some regions.

Part 3: Policy Implications

During our site visits we heard literally dozens of new and interesting ideas for using entrepreneurship to build new companies and to build stronger communities.

Focus on People

Without a doubt, finding good people is the number one challenge facing America's entrepreneurs, just as it is a top priority for all business sectors of the economy. Thus, business leaders and policymakers must devote substantial effort to finding new tools that better prepare workers for the "new economy" and that enable businesses to recruit and retain them.

Efforts to improve K-12 education and training in math and science can have huge positive impact. Since the greatest labor demand and the greatest shortfalls are in high-technology sectors, efforts that emphasize technology training make sense.

Given the intensity of today's labor shortages, these long-term remedies must also be supplemented with shorter-term measures. Expanding the programs for immigration of technically skilled personnel, such as the H1-B visa program, could serve as a short-term fix to labor problems in some sectors. At the same time, businesses need to be more creative in their employment practices. For example, several participants in our focus groups had enjoyed great success by hiring employees from the growing population of senior citizens or by taking advantage of telecommuting to enlist workers from outside traditional commuting areas.

All of these measures emphasize expanding the size of the labor pool. Communities might also consider steps to make the region more attractive to the existing work force. One way to do this is to develop an amenities-based economic development strategy²³ that creates local environments that are attractive to "new economy" knowledge workers. Through this approach, local leaders invest in amenities such as parks, arts districts, and recreational facilities. All of these benefits are valued by younger workers, and areas with these amenities are likely to do better in terms of attracting such workers.

Fund Infrastructure and E-frastructure

Entrepreneurial companies have some unique infrastructure, or "e-frastructure," needs. New economy companies need office space with flexible lease arrangements in wired buildings with 24-hour services, including security, air conditioning, heating, and other building services. At first glance, these demands seem obvious. Many firms do not receive these services in most major metropolitan areas because leases tend to be long-term, and building services often shut down each evening.

Local economic development organizations have the tools and

resources to address many of these issues. And, fortunately, many communities are beginning to act on these concerns. For example, New York has begun a "wired

POLICY IMPLICATIONS

Focus on People
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Seed Local Networks

buildings" program that supports real estate developers in their efforts to provide fast Internet access. In Washington, D.C., the newly-formed Digital Capital Alliance, composed of local business leaders, city government officials, and landlords and developers will focus on the needs of high-technology firms by wiring buildings, expediting building permits, and improving access to capital.²⁴

Re-examine the Role of Colleges and Universities

Our focus groups recommend that policymakers re-examine the role of colleges and universities in local economic development. The menu for reform is huge, but the general outlines for change should focus on the following strategies:²⁵

- ♦ Make technology transfer and licensing rules more businessfriendly.
- Expand entrepreneurship training and assist students who seek to start a new business while in school.
- ❖ Work with local business to enhance the university's role in training, recruiting, and retaining quality students and workers.

Symbols Matter

Public officials can make an important contribution to regional growth simply by recognizing the critical role played by high-growth companies in the local economy. Simple, no-cost actions such as site visits to new companies and embracing entrepreneurship in economic development strategies will help send an important message to these new companies and to the community. For example, the states of Kentucky and South Carolina have both publicly embraced entrepreneurship as a key part of their development strategies.²⁶

Finally, states and localities might also consider creating awards for innovation and entrepreneurship akin to the U. S. Department of Commerce's Malcolm Baldridge awards. North Carolina has recently embraced this model in a proposal for a state award for innovation.²⁷

Seed Local Networks

Networks are the single most critical factor for a strong entrepreneurial region. While each community we examined had the same needs, the most successful communities relied on networks to meet those needs. But these informal local networks of entrepreneurs and for entrepreneurs—the essential links that accelerate the growth of an entrepreneurial economy—reflect something of a "chicken and egg problem." If a region does not yet have a critical mass of entrepreneurs to build such networks, how can networks be started in order to create a critical mass of entrepreneurs?

There is no instant fix that can jump-start this networking effort. Sometimes local networks organize around a public institution affiliated with a local government or university. For example, our Utah focus group noted that the University of Utah's Wayne Brown Institute was critical to the region's development. Similarly, in Atlanta, Georgia Tech's Atlanta Technology Development Center is a key local networking resource. But these institutions can also be privately run, as we saw in Northern Virginia's Netpreneur Program or at the Center for Entrepreneurial Development (www.cednc.org) in Research Triangle Park.

These institutions share a number of characteristics, ²⁸ but one stands out. Each of these groups sees itself primarily as a networking resource. While most of these organizations offer some set of programs (such as technical assistance), they also offer a venue where entrepreneurs can meet informally to share ideas, interests, and information. Something as simple as a monthly beer bash or happy hour where entrepreneurs talk about access to capital, people, technology, and support infrastructure can have a dramatic effect in fostering a strong entrepreneurial spirit in the community.

Part 4: Conclusion

What Makes an Entrepreneurial Community

Our goal in holding the focus group meetings was to examine public policy factors affecting entrepreneurs. Public policy results from common decisions made by the government—federal, state, county, and municipal governments, bond authorities, school districts, and licensing boards. Their decisions affect entrepreneurs indirectly and directly. Indirectly, governments craft the overall framework in which an entrepreneur functions—e.g., telecommunications and transportation infrastructure, immigration laws, environmental regulation, and bankruptcy laws. Directly, governments deal with an entity on an individual basis—e.g., licensing, workplace safety regulations, and permitting. Entrepreneurs often appreciate the role of indirect government but are very often frustrated by direct government.

One or two entrepreneurs can shine in any community, but one or two entrepreneurs do not make an entrepreneurial community. To have a strong entrepreneurial community, lots of threads must be woven together: public policy that supports entrepreneurship, people, money, technology, customers, transportation, a supportive environment, and services, to name just a few. As more threads are woven together, the community's strength and resource base grows.

Our focus groups have led us to the conclusion that the secret of an entrepreneurial community is how regional development strategies and networks work together. While there are many strong entrepreneurial

regions in this country, entrepreneurs are not sprinkled evenly across the landscape. Our focus group participants clearly understood that their regions grew according to a pattern. The presence of a university or anchor company served as a spark, and, as the region grew, more entrepreneurs—as well as entrepreneur support systems—emerged and prospered. The biggest challenge today is to find ways to give more regions the option to pursue this path to development.

For policymakers, there is a significant challenge in fostering new entrepreneurial regions or a new entrepreneurial economy. Government's traditional and most obvious role is to create new programs to solve problems. However, nurturing entrepreneurial communities cannot be accomplished in the traditional way. While a sound infrastructure and quality human services are at the foundation of any community, the keys to a region's entrepreneurial success are private networks and a regional commitment to entrepreneurial growth. Perhaps government's most effective tool is to stimulate and support private sector institutions that work directly with entrepreneurs to build networks and spur regional entrepreneurial development.

A final point for policymakers is clear: avoid doing harm. Nearly all of our focus groups expressed satisfaction with the basic foundation principles of the American economic landscape. While they recognized areas for improvement, they also agreed that conditions for starting and growing a new business in the U.S. are good. There is no guarantee of success, but the rules of the game are relatively clear and widely understood. Our participants were nearly unanimous in their assessment that major changes in economic policy and programs are not needed at this time. Instead, their comments focused on addressing smaller problem areas and ensuring that the benefits of our entrepreneurial boom are shared throughout the U.S.

Acknowledgments

We would like to thank the following groups who provided invaluable assistance to the NCOE during this project:

Arthur Blank Center for Entrepreneurship Babson College Waltham, MA (www.babson.edu)

Bastion Capital Corporation

Los Angeles, CA

(www.bastioncapital.com)

Birmingham Chamber of

Commerce Birmingham, AL

(www.birminghamchamber.com)

Business-Higher Education Forum

Washington, DC (www.nab.com)

Center for Entrepreneurship University of Colorado

Boulder, CO

(www.colorado.edu)

Center for Economic Development Carnegie Mellon University

Pittsburgh, PA (www.cmu.edu)

Council for Entrepreneurial

Development

Research Triangle Park, NC

(www.cednc.org)

Federation for Enterprise

Development San Diego, CA (www.fed.org)

Georgia Center for Advanced Telecommunications Technology

Atlanta, GA

(www.gcatt.gatech.edu)

Great America Marketing

Enterprises Scottsdale, AZ

(www.duckrace.com)

IC2 Institute Austin, TX (www.ic2.org) Innovation Works

Pittsburgh, PA

(www.innovationworks.com)

Kauffman Center for

Entrepreneurial Leadership

Kansas City, MO (www.emkf.org)

Mays Chemical Corporation

Indianapolis, IN

(www.mayschem.com)

Morino Institute—Netpreneur

Program Reston, VA

(www.netpreneur.org)

National Center for American Indian Enterprise Development

Mesa, AZ

(www.ncaied.org)

Puget Sound Business Journal

Seattle, WA

(www.bizjournals.com/seattle)

SAIC, Inc. La Jolla, CA (www.saic.com) UVentures, Inc.

New York, NY (www.uventures.com)

University of Utah, Office of

Corporate Programs Salt Lake City, UT (www.osp.utah.edu)

Young Entrepreneur's Organization

Alexandria, VA (www.yeo.org)

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